REMARKS

Prior to this Reply, claims 1-9, 11, 23 and 24 were pending. Per the January 23, 2003 final Office Action, claims 3 and 11 stand rejected under 35 U.S.C. § 112. Claims 1-9 and 11 stand rejected by the Examiner under 35 U.S.C. §102(a) as being anticipated by PCT No. WO98/29879 to Kojima et al. (hereafter "Kojima"). Claims 1-4, 11 and 23-24 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,493,266 to Sasaki et al. (hereafter "Sasaki"). Claim 23 stands rejected under 35 U.S.C. §102(a) as being anticipated by Kojima or alternatively as being obvious over Kojima. Finally, claims 5-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki in view of U.S. Patent No. 6,020,808 to Hogge (hereafter Hogge).

By way of this Reply, Applicant has cancelled claim 6 and amended claims 1, 3, 11, 23 and 24. Thus, claims 1-5, 7-9, 11, 23 and 24 are currently pending. Reconsideration of this Application is respectfully requested in view of: (1) the amendments to claims 1, 3, 11, 23 and 24; (2) the accompanying Declaration of Honorio S. Luciano; and (3) the remarks below.

35 U.S.C. § 112 Rejection of Claims 3 and 11

Claim 3 has been amended to eliminate the objected to language, namely "electrically separate." Claim 11 has been amended to depend from claim 2, thus providing proper antecedent basis for the main and sub portions. Accordingly, claims 3 and 11 particularly point out and distinctly claim the subject matter, which Applicant regards as the invention. Applicant respectfully requests that the rejection of claims 3 and 11 based on 35 U.S.C. § 112 be withdrawn.

Kojima Does Not Qualify As Prior Art to the Claimed InventionUnder 35 U.S.C. § 102(a)

The publication date for Kojima (WO98/29879) is July 9, 1998. Thus, in order to swear behind this reference, Applicant is submitting the Declaration of Honorio S. Luciano pursuant to 37 C.F.R. § 1.131 (hereafter the "Luciano Declaration") to establish that prior to July 9, 1998, Mr. Luciano conceived of the present invention currently embodied in pending claims 1-5, 7-9, 11, 23 and 24. (Luciano Declaration, ¶¶ 2-4) From the time of conception prior to July 9, 1998 and continuing until after July 28, 1998 (the filing date of the provisional patent application from which the present application claims priority of filing), Mr. Luciano diligently and continuously reduced the invention to practice. (Luciano Declaration, ¶ 5) Accordingly, Applicant respectfully submits that Kojima does not qualify as prior art to the present invention of claims 1-5, 7-9, 11, 23 and 24 under 35 U.S.C. § 102(a).

Rejection of Claims 1-11 and 24 Under 35 U.S.C. § 102(a) As Being Anticipated by Kojima

Based on the Declaration of Honorio S. Luciano, and as explained above, Kojima does not qualify as prior art to claims 1-9, 11 and 24 of the present invention under 35 U.S.C. § 102(a). Accordingly, Applicant respectfully requests that the rejection of claims 1-5, 7-9, 11 and 24 under 35 U.S.C. § 102(a) as being anticipated by Kojima be withdrawn.

Rejection of Claim 23 under 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a) Based on Kojima

Paragraph 8 of the January 23, 2003 final Office Action states, "Claim 23 is rejected under 35 U.S.C. § 102(b) as anticipated by Kojima et al. (WO98/29879) or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Kojima et al."

As an initial matter, Applicant believes that the reference to 35 U.S.C. § 102(b) is a typographical error and should actually be 35 U.S.C. § 102(a) because Kojima (WO98/29879) was not "described in a printed publication in this or a foreign country, . . . more than one year prior to the date of the application for patent in the United States," as required by 35 U.S.C. § 102(b). Specifically, the publication date of Kojima (WO98/29879) is July 9, 1998 and the filing date of the present application (for purposes of priority) is July 28, 1998, the filing date of provisional patent Application No. 60/094,434 from which the present application claims priority. Thus, Kojima (Wo98/29879) was not published more than one year prior to the present application for patent in the United States.

Therefore, since Kojima does not qualify as prior art under 35 U.S.C. § 102(a), as explained above, or 35 U.S.C. § 102(b) based on its publication date and the priority filing date of the present application, Applicant respectfully requests that the Examiner withdraw rejection of claim 24 on these grounds.

Rejection of Claims 1-4, 11, and 23-24 under 35 U.S.C. § 102(b) As Being Anticipated by Sasaki

The Examiner has rejected claims 1-4, 11 and 23-24 as being anticipated by Sasaki.

Amended independent claims 1, 23 and 24 all require polymeric PTC elements. Sasaki, however, does not disclose a device with polymeric PTC elements. Instead, the PTC elements of the Sasaki device are barium titanate based:

> Each of the semiconductor substrates 12 and 13 has positive resistance-temperature coefficients, and is obtained by adding a slight amount of rare earth element such as lanthanum, cerium, yttrium or samarium to a material which is prepared by partially

replacing barium forming barium titanate with strontium for attaining a semiconductor state, and firing this material, for example.

(*Sasaki, column 4, lines 4-11*)

In addition, independent claims 1, 23 and 24 have been amended to more clearly describe the relationship between the electrodes and the PTC elements in the present invention. As amended, claims 1, 23 and 24 each require the first polymeric PTC element to be in contact with the second polymeric PTC element. It is in this manner that the first polymeric PTC element of the present invention is bonded to the second polymeric PTC element.

Sasaki does not disclose nor suggest this claimed PTC element configuration. Because the electrical device in Sasaki contemplates the use of barium titanate based PTC elements, it is necessary to bond the PTC elements of Sasaki together through the use of a glass layer (15). *(Sasaki, column 4, lines 2-4; Figs. 1-2).* As a result, the first PTC element (12) is never in direct contact with the second PTC element (12) in the device disclosed in Sasaki.

Therefore, because Sasaki does not disclose each element of amended independent claims 1, 23 and 24 of the present invention, Applicant respectfully submits that claims 1, 23 and 24 (and claims 2-4 and 11 which depend from claim 1) are patentably distinct from Sasaki.

Rejection of Claims 5-6 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Sasaki In View of Hogge

The rejection of claim 6 has been rendered moot in view of the cancellation of claim 6.

Claim 5, which depends from claim 1, requires the electrodes to be comprised of a metal foil. While it is true that Hogge discloses the use of metal foil electrodes, Hogge fails to disclose or suggest a device wherein the first and second PTC elements contact one another as required by amended claim 1. Instead, Hogge discloses a device wherein a center electrode (16) divides and completely separates the first PTC element (18) from the second PTC element (20). Thus, both Sasaki and Hogge fail to disclose or suggest a device wherein the first PTC element is in contact with the second PTC element. Indeed, Sasaki and Hogge teach away from the present invention by completely separating the first and second PTC elements through the use of metal electrode and glass layer (e.g., Sasaki) and metal foil electrode (e.g., Hogge). Thus, Applicant respectfully submits that claim 5 is not obvious in view of the combination of Sasaki and Hogge. Accordingly, withdrawal of the rejection of claim 5 is respectfully requested.

CONCLUSION

For the foregoing reasons, Applicant respectfully submits Claims 1-5, 7-9, 11, and 23-24 are in condition for allowance. Accordingly, withdrawal of the rejections and allowance of Claims 1-5, 7-9, 11, and 23-24 is respectfully requested.

The Commissioner is hereby authorized to post payment of any fees associated with this communication to Deposit Account No. 23-0280.

Respectfully submitted,

Dated: 7-23-03

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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Alexandria, VA 22313-1450

on July 23, 2003.

Linda K. Johnson

Linda K. Johnson

ATTACHMENT A

1. (Twice Amended) A surface-mountable electrical circuit protection device comprising:

a first polymeric PTC element having first and second surfaces, a first electrode attached to the first surface;

a second polymeric PTC element having first and second surfaces, a second electrode attached to the second surface;

a third electrode positioned between the first and second [laminar] polymeric PTC elements [and having an electrical resistance], the third electrode connected to the second surface of the first polymeric PTC element and the first surface of the second polymeric PTC element [and having a main portion and a sub-portion, the main portion being separated from the sub-portion by an element having a higher electrical resistance than the electrical resistance of the third electrode];

the first polymeric PTC element being in direct contact with the second polymeric PTC element;

a first electrically conductive end termination wrapping around a first end of the device and electrically contacting the first and second electrodes; [and]

a second electrically conductive end termination wrapping around a second end of the device and electrically contacting the third electrode;

wherein an electrically insulating layer is deposited on the first and second electrodes between the first and second end termination.

3. (Amended) The device of Claim 2, wherein the main portions of the first and second electrodes are physically [and electrically] separated from the sub-portions, respectively.

12. (Twice Amended) The device of Claim [1] 2, wherein the electrically insulating layer is in direct contact with the first PTC element between the main portion and the sub-portion of the first electrode and is in direct contact with the second PTC element between the main portion and the sub-portion of the second electrode.

23. (Amended) A surface-mountable electrical circuit protection device comprising:

[only] a first polymeric PTC element and a second polymeric PTC element, the first polymeric PTC element having first and second surfaces, a first electrode attached to the first

surface and the second polymeric PTC element having first and second surfaces, a second electrode attached to the second surface;

a third electrode positioned between the first and second polymeric PTC elements [and having an electrical resistance], the third electrode connected to the second surface of the first polymeric PTC element and the first surface of the second polymeric PTC element;

the first polymeric PTC element directly contacting the second polymeric PTC element;

a first electrically conductive end termination wrapping around a first end of the device and electrically contacting the first and second electrodes; and

a second electrically conductive end termination wrapping around a second end of the device and electrically contacting the third electrode.

24. (Amended) A surface-mountable electrical circuit protection device comprising:

a first polymeric PTC element having first and second surfaces, a first electrode attached to the first surface;

a second polymeric PTC element having first and second surfaces, a second electrode attached to the second surface;

a third electrode positioned between the first and second [laminar] polymeric PTC elements [and having an electrical resistance], the third electrode connected to the second surface of the first polymeric PTC element and the first surface of the second polymeric PTC element, the third electrode further being in electrical communication with the first electrode through the first polymeric PTC element and with the second electrode through the second polymeric PTC element;

the first polymeric PTC element in contact with the second polymeric PTC element between the first and second electrodes;

a first electrically conductive end termination wrapping around a first end of the device and electrically contacting the first and second electrodes; and

a second electrically conductive end termination wrapping around a second end of the device and electrically contacting the third electrode.